

INTRODUCTION TO ELECTRONIC COMMERCE

A HANDBOOK FOR BUSINESS



March 2001

PREFACE

INTRODUCTION TO ELECTRONIC COMMERCE A HANDBOOK FOR BUSINESS

The Department of Defense (DoD) and the Joint Electronic Commerce Program Office (JECPO) welcomes your interest in Electronic Commerce (EC). This handbook will help you learn about EC, how to become an EC Provider, and how to use the advantages of EC to meet the competitive demands of the global marketplace.

This handbook is a tool that will help you develop a greater understanding of how EC is working successfully. You will learn the role of Electronic Commerce Interoperability Process (ECIP), how to register with the Central Contractor Registration (CCR), and much more. This handbook also provides details about the different participants in the Government EC process.

We have included summaries at the beginning of each chapter to better assist you with gaining information. Should you have any questions after you have read this handbook, please contact the Joint Electronic Program Office (JECPO) at:

Joint Electronic Commerce Program Office
8725 John J. Kingman Road, Mail Stop 6205
Fort Belvoir, Virginia 22060-6205
Phone: 1-800-334-3414
E-Mail: dodedi@hq.dla.mil
Web site: <http://www.acq.osd.mil/jecpo>
Operating Hours: 8am-6pm, Eastern Standard Time
Monday-Friday, except Federal Holidays

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INTRODUCTION TO ELECTRONIC COMMERCE

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EXECUTIVE SUMMARY

OVERVIEW

In October 1993, President Clinton initially mandated executive branch agencies and departments to begin using Electronic Commerce (EC). A year later, Congress passed the Federal Acquisition Streamlining Act of 1994 that required the entire Federal Government to begin using EC.

The entire Federal Government and the Department of Defense (DoD) are using EC to increase the efficiency of the Government's procurement process, to reduce cost, and to eliminate paper.

In November 1997, the Secretary of Defense released the Defense Reform Initiative Report (DRIR) introducing the principles of Electronic Business (EB). The report stated that "a full commitment to electronic business operations will not only result in tangible savings, but will also change the DoD's business culture, forcing managers to think differently and act more efficiently." Thus, by using EB principles, the concept of EC has been propelled beyond the EC standards process.

CHAPTER SUMMARIES

Chapter One introduces the concept of Electronic Commerce (EC) and describes the benefits of using EC, the functions incorporated within the EC process, and expected developments in the EC Industry.

Chapter Two describes the basic facts of Electronic Data Interchange (EDI). This chapter will inform you of the methods and the business environments in which EDI is used. It also lists the many benefits of EDI, the role of a Trading Partner (TP), and describes the typical flow of EDI transactions.

Chapter Three provides information about DoD Business Opportunities (DoD BusOpps) and Electronic Bid Solicitation (EBS) processes. It explains how these affect DoD contracting.

Chapter Four presents an overview of the new Electronic Commerce Interoperability Process (ECIP), which replaces the Value Added Network (VAN) Licensing Agreements (VLA). This chapter defines and explains some of the terminology and concepts used for connecting and operating on the DoD Electronic Commerce Infrastructure (ECI).

Chapter Five provides information on how to register with the DoD. It also explains the purpose and benefits of registration, and the importance of the registration process.

Chapter Six describes how EC works over the Internet and how both the Federal Government and private industry are using the Internet to exchange data.

Chapter Seven outlines different ways to sell goods and/or services to the Federal Government.

CHAPTER ONE

ELECTRONIC COMMERCE

CHAPTER SUMMARY

This chapter introduces the concept of Electronic Commerce (EC) and describes the benefits of using EC, the functions incorporated within the EC process, and expected developments in the EC Industry.

THE ELECTRONIC COMMERCE FRAMEWORK

In July 1997, the future direction of Electronic Commerce was outlined in The Clinton Administration's *Framework For Global Electronic Commerce*. The Framework outlines the Administration's strategy for fostering increased business and consumer awareness in the usage of electronic networks for commerce.

The framework presents five principles to guide the Government and private industry through the evolution of Electronic Commerce. It also makes recommendations about nine key areas where international efforts are needed to preserve the Internet as a non-regulated medium, one in which competition and consumer choices will shape the marketplace.

WHAT IS ELECTRONIC COMMERCE?

Electronic Commerce (EC) is the interchange and processing of information using electronic techniques for accomplishing business within the framework of commercial standards and practices. Further, an integral part of implementing EC is the application of business improvements or reengineering principles to streamline business processes prior to the incorporation of technologies facilitating the electronic exchange of business information.

EC is the paperless exchange of business information. The following is a list of some of the techniques being used in the industry to assist companies in doing business electronically:

- Electronic Data Interchange (EDI)
- Electronic Mail (E-Mail)
- Business Opportunities (BusOpps)
- Purchase Cards
- General Services Administration (GSA)
- Electronic Funds Transfer (EFT)
- Electronic Catalogs (ECAT)
- Electronic Malls (EMALLs)
- Procurement Sites

An integral goal of implementing EC is to assist commercial and Federal Government agencies with the exchange of electronic data. EC enables businesses to exchange documents more rapidly and with greater accuracy.

A common feature of all these techniques is that they use the Internet. Sophisticated Internet technologies (for more information on Internet Technology, see Appendix A) and easy-to-use Web tools have expanded the potential of using EC.

These technologies enable Federal Government agencies to streamline the acquisition process and to eliminate time-consuming business practices, ultimately benefiting those doing business electronically. EC also enables contractors to receive faster payments, expand their markets, improve the operating efficiencies, reduce the response time, and decrease the reliance on paper.

ELECTRONIC DATA INTERCHANGE

Electronic Data Interchange (EDI) is a part of Electronic Commerce. EDI is the computer-to-computer electronic exchange of business information using a public standard. The exchange takes place between what is known as "Trading Partners."

A Trading Partner is an organization or individual with whom information or data is accessed or exchanged. The term trading partner includes private industry, academia, and Government entities. In the current context, a Trading Partner is any business that has registered with the Central Contractor Registration (CCR) and conducts business electronically with the Federal Government. (See Chapter Six)

ELECTRONIC MAIL

Electronic Mail (E-Mail) is one of the most frequently used applications on the Internet. Many people have access to the Internet at school, home, and/or work. They use the Internet to send and receive E-Mail messages.

Sending E-Mail messages is fast and easy. It is only a matter of logging onto the E-Mail Service Provider, creating the message, and clicking the “send” button. The message goes to the designated Internet Service Provider (ISP), which in turn sends the message to the recipient’s mail server. On the way, the message may go through several servers, each reading the domain name in order to route it to the recipient’s server.

The main benefits of E-Mail are:

- Ease and rapidity of message transmission.
- Ability to send messages worldwide.
- Ability to duplicate and send messages to several parties at one time.
- Ability to incorporate files from different software packages for the recipient to view.
- Ability to respond quickly to urgent messages.
- Virtual elimination of paper.

ON-LINE LISTING OF SOLICITATIONS

One of the most complete listings of Federal Government solicitations can be found in the *CBDNet*, which is the online version of the *Commerce Business Daily*. The *CBDNet* contains notices of proposed Government procurement actions, contract awards, and sales of Government property. These lists are proposed procurement actions that are estimated at \$25,000 and above.

A new edition of the *CBDNet* is issued every business day and contains approximately 500-1,000 notices. The notices appear only once and are printed in the *Commerce Business Daily* approximately two days after appearing in the *CBDNet*. The *CBDNet* is available at: <http://cbdnet.gpo.gov/>

DOD BUSINESS OPPORTUNITIES

The DoD Business Opportunities (DoDBusOpps) web site offers contracting information for vendors to use the Internet to review on-line solicitations. DoDBusOpps was created to provide links to web-based systems that post DoD solicitations. Access to the DoD Business Opportunities is available at web site: <http://dodbusopps.com>

BUSINESS OPPORTUNITIES AVAILABLE THROUGH GSA

The General Services Administration (GSA) purchases goods and services for the Federal Government, civilian agencies, the military, the Federal Courts, and the U.S. Congress. GSA procurement is both national and international in scope.

For more information on business opportunities with GSA, visit the GSA web site at: <http://www.gsa.gov>. Information about the Federal Supply Schedule Program is available at: <http://pub.fss.gsa.gov>

PURCHASE CARDS

In less than a decade, the Federal Government has changed its purchasing habits through the use of the purchase card. For example, in Fiscal Year (FY) 1989, the Federal Government purchased less than \$1 million in goods and services using purchase cards. In FY98, the Government purchased more than \$5 billion by using purchase cards. Nearly every agency is making increased usage of purchase cards. For more information on the purchase card visit web site: <http://purchasecard.sarda.army.mil/>

Use of the purchase card is required for micro-purchases (those valued at less than \$2,500), and is being increasingly used for payment on contracts and orders. During the first quarter of Fiscal Year 1999, over 81% of all micro-purchases in the DoD were made using the purchase card. Purchase cards are currently accepted by more than 14 million vendors and can now be used at electronic catalogs and malls.

ELECTRONIC FUNDS TRANSFER

The Electronic Funds Transfer (EFT) is the electronic exchange of payment and remittance information. Starting in 1999, all federal payments must be made by EFT instead of paper checks, according to the revised edition of the Debt Collection Improvement Act of 1996. For more information on the Debt Collection Improvement Act of 1996, visit: <http://www.fms.treas.gov/debt/dmpolicy.html>

The purpose of the EFT legislation is to take advantage of the improved convenience, reduced cost, and increased Internet security of delivering payments electronically. EFT includes Direct Deposit, Automated Teller Machines (ATM), point-of-sale, and credit card transactions.

ELECTRONIC CATALOGS

Electronic Catalogs (ECATs) are Internet-based entities that the Federal Government buyers can use to purchase products and services, place orders, and make payments.

ECATs help reduce the order cycle time and reduce the resources that agency buyers need to make purchases. By using these catalogs, agencies are better equipped to make wiser purchases and gain a greater awareness of the products and services available.

Some of the better known Electronic Catalogs are:

- GSA's Advantage: <http://www.fss.gsa.gov/cgi-bin/advwel/>
- The Air Force's Country Store: <http://www.hanscom.af.mil/Orgs/Spo/AVC/Cstore>
- The Army's A-Mart: <http://acqnet.brtrc.com/amart/> (This site requires a User Name and Password)
- The Defense Logistic Agency's
 - Defense Supply Center Philadelphia (DSCP): <http://www.dscp.dla.mil/>
 - Defense Supply Center Richmond (DSCR): <http://www.dscr.dla.mil/>
 - Defense Supply Center Columbus (DSCC): <http://www.dscc.dla.mil/>
 - Defense Reutilization and Marketing Service (DRMS): <http://www.dla.mil/drms>
- The Navy's Information Technology Electronic Catalog (ITEC) Direct: <http://itec-direct.navy.mil/>
- Naval Inventory Control Point (NAVICP): <http://www.navicp.navy.mil/>
- NASA's Government-Wide Massbuy Contracts Homepage: <http://genesis.gsfc.nasa.gov/nasa/adpmass.htm>
- The Department of Justice's UNICOR Federal Prison Industries on-line Shopping Catalog: <http://www.unicor.gov/>
- National Institutes of Health Computer Office of Information Resources Management Home Page: <http://www.oir.nih.gov/>

ELECTRONIC MALLS

Electronic Malls (EMALLs), including the DoD's EMALL and GSA's Government Electronic Mall (GEM), consist of several Electronic Catalogs spliced together. At EMALLs, Government buyers can access supplier catalogs in mall-type settings. To have the presence on an EMALL, vendors must submit their catalogs in an electronic format.

The DoD EMALL complements the primary DoD ordering mechanism. It is a method targeted to the discretionary Purchase Card user, and/or commercial part number shoppers. The EMALL gives additional choice that is made available by the Internet technology, search engines, distributed databases and credit card ordering. It is a flexible system which provides more services to get what is needed, when it's needed and at a price that is reasonable. The DoD EMALL is constantly being updated with new information and to fit the needs of the end-user. The DoD EMALL is available at web site: <http://www.emall.dla.mil/>. The GSA GEM is available at web site: <http://www.gsa.gov/gem.htm>

PROCUREMENT SITES

Government agencies that tend to focus on larger procurements have developed their own procurement-related sites (for a list of Procurement Sites, see Appendix C) on the Internet.

Most of these sites contain bidders lists, drawings and specifications, announcements of bidders conferences, questions from vendors regarding solicitations (as well as agency responses), and Request For Proposals (RFPs) that can be downloaded.

FORHELP

For further questions and/or concerns, please contact:

Electronic Commerce Information Center (ECIC) at 1-800-334-3414 (Monday – Friday, 8 a.m.- 6 p.m. EST) or by E-Mail at dodedi@hq.dla.mil.

Other sources of assistance include the Electronic Commerce Resource Centers (ECRCs). These are Government-funded centers that can assist you if there are problems implementing EC and Internet-based commerce. ECRCs also offer technical support and EC training. (See Appendix D for a listing of Electronic Commerce Resource Centers).

CHAPTER TWO

ELECTRONIC DATA INTERCHANGE

CHAPTER SUMMARY

This chapter describes the basic facts of Electronic Data Interchange (EDI). This chapter will inform you of the methods and the business environments in which EDI is used. It also lists the many benefits of EDI, the role of a Trading Partner (TP), and describes the typical flow of EDI transactions.

WHAT IS ELECTRONIC DATA INTERCHANGE?

As stated in Chapter 1, Electronic Data Interchange (EDI) is one method of Electronic Commerce. EDI is the computer-to-computer electronic exchange of business information using a public standard. In other words, EDI is an enabling system of protocol that powers the flow of information in a paperless environment by using standards that are the products of consensus between Government and Industry. The EDI information exchange occurs between Government entities and Trading Partners and also between Government entities.

HISTORY OF EDI

EDI was first used by the Transportation Industry in the 1970s. The main users were ocean, motor, air, rail carriers and their associated shippers, brokers, freight forwarders, and bankers. However, it was not until the early 1990's that the Government began to embrace EDI as a workable solution to the inflated cost of doing business.

Currently, EDI is used by over fifty thousand private-sector companies nationwide, including Federal Express, Eastman Kodak, American Airlines, Nike, Staples, NationsBank, JC Penney, and Prudential Insurance. These companies cover a wide range of services and products including manufacturing, shipping, warehousing, utilities, pharmaceutical, construction, petroleum, metals, food processing, banking, insurance, retail, health care, and textiles.

WHY USE EDI?

EDI provides new business opportunities with both the DoD and commercial market. By using EDI, it is recommended that a business register as a Trading Partner because it will allow the Trading Partner to remain competitive within the business arena. There are several good reasons why EDI should be used, especially, when there is an intention to do business with other branches of the Federal Government. These include:

Greater business opportunities. EDI helps you secure business not only with the Government, but also with many private-sector Trading Partners through the wider dissemination of procurement information.

Greater Efficiency. Electronic documents flow more rapidly and less expensively than paper equivalents.

Improvements in overall quality. EDI entails better record keeping, fewer errors in data, reduced processing time, less reliance on human interpretation of data, and reduced unproductive time.

Reduced inventory. EDI permits faster and more accurate filling of orders; it helps reduce inventory, and supports "just-in-time" inventory management.

Lower mailing costs. EDI helps lessen mailroom sorting and distribution time. It reduces postage and other mailing costs, and prevents the loss of documents.

Reduced order time. EDI is much faster in processing orders than paper-based systems.

Faster billing. EDI orders are filled and delivered in a timelier manner thus speeding up billing and closeout processes.

Better information for management decision making. EDI provides accurate information and audit trails of transactions. This enables businesses to identify areas offering the greatest potential for improving efficiency and reducing costs.

WHAT IS A TRADING PARTNER?

A Trading Partner is an organization or individual with whom information or data is accessed or exchanged. The term trading partner includes private industry, academia, and government entities. In the context of this document, a Trading Partner is any business that has registered with the DoD Central Contractor Registration (CCR) and conducts business electronically with the Government.

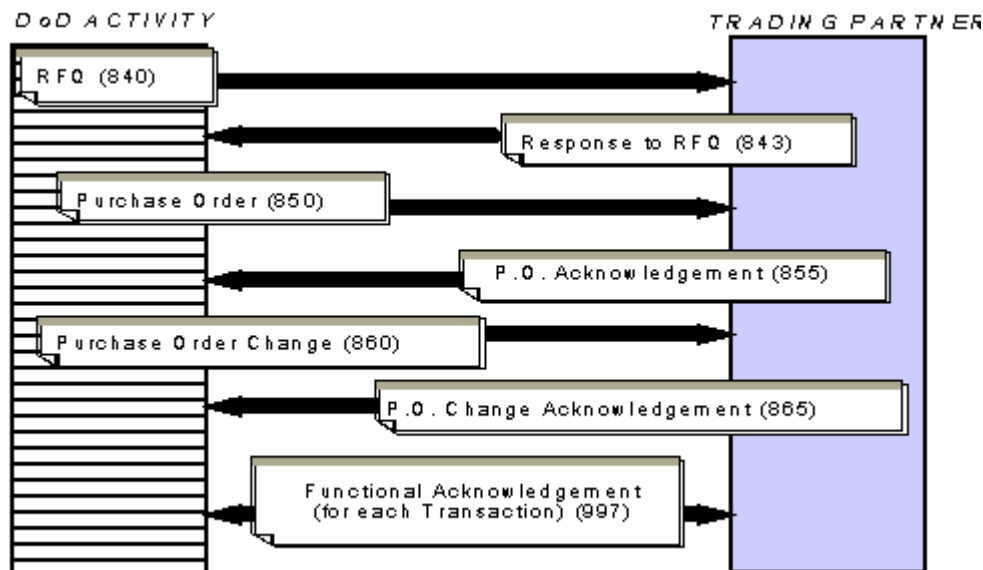
HOW DOES EDI WORK?

In the Government context, the exchange of electronic documents usually goes through the following process:

- The Government transmits a Request for Quotation (RFQ) to Trading Partners who are registered in the Central Contractor Registration (CCR).
- Trading Partners respond by sending a Bid Response to the RFQ via their Value Added Network (VAN).
- The Government buyer reviews all received responses.
- The Government selects the winning contractor based upon bid price and pre-established criteria.
- The Government transmits a Purchase Order that is transmitted electronically to the winning contractor via their VAN.
- The Purchase Order is given standardized electronic formats and numbers (referred to as ANSI X12 standards) so that the information is correctly interpreted by the Trading Partners.
- The contractor responds by transmitting a Purchase Order Acknowledgment.
- The contractor ships the product, and transmits an Invoice document to the Government buyer.
- The Government buyer transmits a Payment Order document to the Defense Finance and Accounting Systems (DFAS) after goods and/or services are received.
- DFAS transmits funds to the contractor by using Electronic Funds Transfer (EFT).

THE FLOW OF EDI DOCUMENTS

The figure below depicts the process of the exchange of electronic documents through EDI:



WHAT ARE THE OPTIONS FOR IMPLEMENTING EDI?

There are some options for implementing EDI. The options selected depend on the number of expected monthly EDI transactions. However, before deciding to implement EDI, a Government Trading Partner should do some research to find if the Government has been purchasing their products or services with EDI. These statistics are available at some of the web sites that offer Government EDI, such as <http://www.softshare.com/>, <http://www.quickbid.com/>, or <http://www.simplix.com/>.

If, after doing this research, you decide to implement EDI, there are two options. If you find that there are some business opportunities, but less than five a month, an inexpensive solution is to sign up with an online service such as Bid-Search.com. No EDI software is required and typical costs are less than \$20 per month.

Later, if bidding becomes more frequent, the Government Trading Partner may want to sign up with a VAN and install EDI software.

A Value Added Network (VAN): A Value Added Network (VAN) is a third party communications company that provides the skills and expertise to render EDI services such as electronic post offices; data translation; message storage, sorting, retrieval, etc., to registered Trading Partners. A VAN is often referred to as an electronic clearinghouse for data. A VAN is a third party service provider that functions similar to a long distance telephone company and/or a computer on-line service. A list of DoD certified, Government VANs is available at web site: http://www.acq.osd.mil/jecpo/van_list.htm.

FOR HELP

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CHAPTER THREE

ELECTRONIC SOLICITATIONS

CHAPTER SUMMARY

This chapter provides information about DoD Business Opportunities (DoD BusOpps) and Electronic Bid Solicitation (EBS) processes. It explains how these processes work in DoD contracting.

DOD BUSINESS OPPORTUNITIES

DoD Business Opportunities is a web site created by the Joint Electronic Commerce Program Office (JECPO) and the DoD Electronic Contracting On-line Integrated Product Team (DECOIPT). DoD Business Opportunities provides direct links to over sixty sites within the Army, Air Force, Defense Information Systems Agency (DISA), Defense Logistics Agency (DLA), Navy, and Marines. The direct links also provide the Trading Partner with recent and accurate information for open DoD solicitations and opportunities.

The goal of the DoD Business Opportunities web site is to provide a single entry point for users to identify business opportunities within the DoD Components in accordance with the FY98 National Defense Authorization Act. Users that are successful in searching for and locating desired solicitations will then be directed to access the appropriate DoD Component web site to make offers on the specific solicitations. Additional information about DoD Business Opportunities is available at: <http://dodbusopps.com>

The DoD Business Opportunities web site has two main functions. First, using the Search Open Solicitations feature, a user can specify search criteria and conduct a search on all of the solicitations throughout the DoD. This “universe” of solicitations is created by all of the services funneling data on their solicitations to one main location at DoD Business Opportunities. Users can locate the desired solicitations and are then directed to the Service web site where these solicitations are managed and maintained. Here, users can download, make bids, and execute whatever steps necessary to acquire the business opportunities that exist.

The second feature that DoD Business Opportunities provides is to Search for Solicitation web sites. There are numerous DoD web sites that provide business opportunities and solicitations that are difficult to locate with commercial search engines. DoD Business Opportunities catalogs these sites and provides them to users in an easy-to-navigate directory-tree structure or a searchable database of indexed web sites. Either way, users can gain access to the necessary pools of solicitation information rapidly and accurately.

The DoD Business Opportunities web site also contains a handbook entitled *Doing Business with the DoD*. This is a valuable resource to assist Trading Partners in finding opportunities within the DoD. The handbook provides Trading Partners with the information needed to maintain a competitive edge. The handbook assists with general ideas on how to begin the process and also includes a list of products and services keyed to particular major buying offices.

ELECTRONIC BID SOLICITATION

Electronic Bid Solicitation (EBS) is a process used to provide vendors the opportunity to bid on the procurement of major weapon systems. Potential bidders receive a CD-ROM from a Government agency, such as the Sacramento Air Logistics Center (SALC) or the Tank-Automotive and Armaments Command (TACOM), containing scanned images (digitized) of all documents necessary to prepare a quotation. The CD-ROM stores bid papers, drawings, required forms, and other electronic forms that are needed for the EBS process.

To respond to bids, the vendor must use proprietary software (often provided on CD-ROM) to open files, view the contents of the file, and print the documents.

Once the vendor has completed all the forms and bid papers, the bid is submitted on paper to the appropriate locations. A vendor may also choose to respond by fax and/or E-Mail. As stated in Chapter 1, E-Mail is the most frequently used application on the Internet, and may be used for a number of purposes. Using E-Mail within the EBS process is a concept geared to meet the demands of clients.

THE CD-ROM

CD-ROM is one of the latest mass storage technologies. It provides up to 650 MB of information storage on a single plastic disk that is approximately 5 inches in diameter. CD-ROM is the same technology used in the audio and video CDs in the home.

Some advantages of using a CD-ROM are: (1) it is not as easily damaged or destroyed as magnetic media, such as floppy disks, since a magnet cannot erase it, and (2) it stores more information in less space than magnetic media.

THE FACSIMILE MACHINE

The Facsimile machine (fax) has been in use in the business environment since the 1970s. It was considered a revolution in the transfer of business documents across time and space. It has become an alternative to using postal services.

The fax machine is a device that digitizes a sheet of paper (a picture or business document), sends it over phone lines to a receiving machine and prints the image on a piece of paper. The fax itself is nothing more than three devices in a single package: a communications modem, a scanner, and a printer.

When using the fax during the Electronic Commerce process, there are some disadvantages. Sometimes the process is slow and volume sensitive and the information received is not always legible by the end-user. Also the information received is not digitally or electronically stored.

FOR HELP

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Other sources of assistance include the Electronic Commerce Resource Centers (ECRCs). These are Government-funded centers that can help you if there are problems implementing EC and Internet-based commerce. ECRCs also offer technical support and EC training. (See Appendix D for a listing of Electronic Commerce Resource Centers).

CHAPTER FOUR

ELECTRONIC COMMERCE INTEROPERABILITY PROCESS

CHAPTER SUMMARY

This chapter presents an overview of the new Electronic Commerce Interoperability Process (ECIP), which replaces the Value Added Network (VAN) Licensing Agreements (VLA). This chapter defines and explains some of the terminology and concepts used for connecting to and operating on the DoD Electronic Commerce Infrastructure (ECI).

ELECTRONIC COMMERCE INFRASTRUCTURE

The ECI is a combination of software, hardware, and communication media components that support Electronic Commerce (EC). This infrastructure is used to communicate within DoD and with other Government agencies, as well as between the Government and the private sector. The ECI design is expected to be continually reviewed and revised as the proposed infrastructure is achieved and demands for enhanced or additional functional and operational capabilities exceed the existing infrastructure. As new technologies impact the ECI design, improved methods will be incorporated into the infrastructure. As users become more experienced, and demands increase for improved performance and/or additional capabilities, design upgrades will be made, as required.

ELECTRONIC COMMERCE INTEROPERABILITY PROCESS

Electronic Commerce Interoperability Process (ECIP) was developed to protect ECI, not to validate or certify the capabilities of ECI Providers. The ECIP will improve overall customer satisfaction among both commercial and government users of the Electronic Commerce Infrastructure (ECI). It emphasizes economic forces, customer requirements, and customer satisfaction as the primary determinants of the services and capabilities ECI Providers should render.

ECI Providers are Federal Government departments, services, agencies; entities providing Gateway (GW) services to the Federal Government; commercial Value Added Networks (VANs); or other entities transmitting, receiving, sorting, and providing access to EC/EDI messages and/or transactions via the DOD ECI Commercial Trading Partners (TPs) which may operate as ECI Providers on their own behalf, even if they do not intend to service other commercial TPs. (Click on the applicable link(s) above of ECI Providers in each category. The approved lists will be provided as applicants complete the new ECIP.) A current list of government VANs is available at web site: http://www.acq.osd.mil/jecpo/van_list.htm

To become an ECI Provider, applicants must successfully complete the Electronic Commerce Interoperability Process (ECIP). The first step in the process is to carefully review the Terms and Conditions, ECI Operating Characteristics, ECIP Guidelines and the Interoperability Test Plan (ITP) to ensure that you are functionally and technically capable of successfully completing the entire process. The Terms and Conditions are available at: <http://www.acq.osd.mil/ec/ecip/termcond.htm> To review the ECI Operating Characteristics, visit web site: <http://www.acq.osd.mil/ec/ecip/operatingchar1.htm> The ECIP Guidelines are available at web site:

To actually start the process, all applicants must complete the Client Application Questionnaire (CAQ). When the CAQ is submitted, the applicant is deemed to have accepted the Terms and Conditions and agrees to operate on the ECI according to the procedures presented in the ECIP Guidelines. After the completed CAQ is submitted and reviewed, the applicant will be contacted by the ECIP Test Facility (ETF) to schedule testing in accordance with the ITP, which is administered by the Joint Interoperability Test Command (JITC). To review the Client Application Questionnaire, visit: <http://www.acq.osd.mil/ec/ecip/caq3.htm>

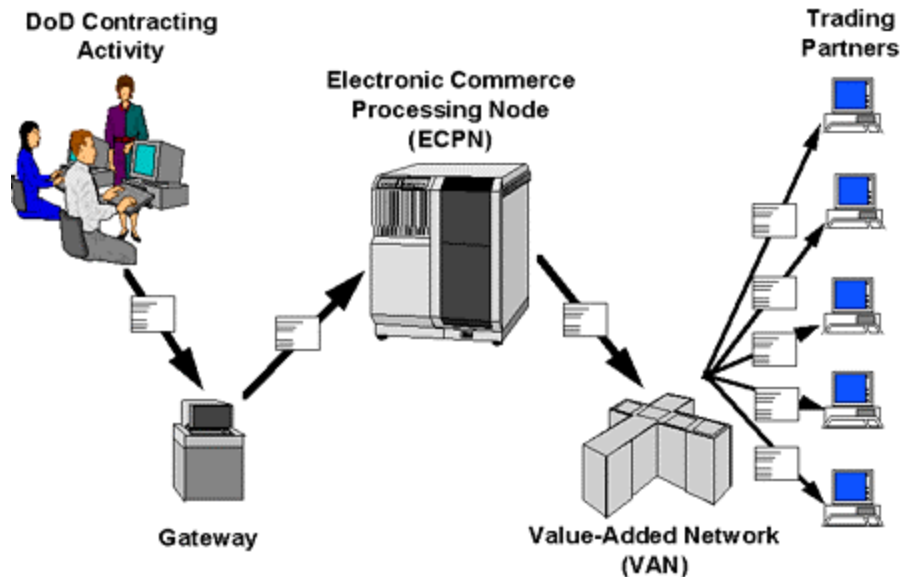
ECI PROVIDER SERVICES

Prior to purchase, careful consideration is essential when and if it becomes necessary to decide upon whether to use a VAN, or which VAN to use, when interoperating with the ECI. Each VAN is unique, offering various services and capabilities at different costs. Trading Partners should select a VAN that adheres to their business practices and that have business objectives that add value to the Trading Partner's own business objectives.

WHAT IS A VALUE ADDED NETWORK?

As stated in Chapter 2, a VAN is a third party communications company (ECI Provider) that provides the skills and expertise to render services such as electronic post offices; data translation; and message storage, sorting, retrieval, etc., to customers (usually called registered Trading Partners). A VAN is often referred to as an electronic clearinghouse for data—a third party service provider that functions similar to a long distance telephone company and/or a computer on-line service. A current list of government VANs is available at web site: http://www.acq.osd.mil/ec/ecip/van_list.htm . Visit their individual web sites for a list and description of the services offered by each.

The figure below depicts how Trading Partners retrieves electronic documents.



VANADVANTAGES

Most VANs offer service, 24 hours a day, 7 days a week, and can provide the following:

- Provides access to Government agencies with one toll-free or local call
- Serves as an electronic mailbox where messages are forwarded, routed, and stored
- Grants access regardless of physical location at any time of the day or night
- Supplies reliable connections to Trading Partners using communication speeds and protocols
- Provides security and technical support for transactions including audit trails
- Offers additional Value Added Services such as translation, archiving, etc.

CHOOSING A VAN FOR DOD CONTRACTING

In evaluating VANs, the following factors should be considered:

- Communication speeds and protocols supported
- Fixed cost for basic services and additional costs for other services
- Data backup and recovery services offered
- Data security features
- Transmission status reports and usage accounting data
- Transaction filtering (so you only receive solicitations in which you are interested)
- Which activities and web sites does it monitor for RFQs
- ANSI X12 standards compliance
- Additional Value Added Services (VAS) offered

SOFTWARE COMPATIBILITY

It is important to research the services that the VAN will provide. It is extremely important to research the software packages that the VAN will support. Some VANs work only with software that they supply. Other VANs work with a specific list of translation software packages, and a few VANs work with almost any translation software package. Many VANS now operate in an Internet environment using web-based browsers.

For newcomers or novices doing business electronically, especially with DoD, consider getting VAN service and EC software from the same provider. Many VANs offer both VAN services and software.

COSTS

Currently, there are two types of cost schedules available for VAN services: fixed and variable. A fixed cost schedule sets a predetermined price for VAN services, regardless of the transaction volume that passes through the VAN. On a variable cost schedule, a Trading Partner pays for each transaction. This cost is usually determined by the number of “electronic envelopes” sent and the number of characters sent in each transaction.

Compare the prices of the VANs and analyze the volume of transactions to help determine which cost schedule would be most beneficial.

VALUEADDEDSERVICES

A Value Added Service (VAS) provider, sometimes known as an EDI Service Bureau, offers additional services. Some VANs also provide these services.

Value Added Services include:

- Alternative delivery methods for non-EDI enabled firms, such as EDI-to-FAX
- Assistance in registering with the Central Contractor Registration (CCR) and with other Government agencies that are doing business electronically
- Assistance in identifying agencies which purchase your firm’s goods or services
- Profiling of procurement opportunities; new RFPs/RFQs/IFBs are screened against a customized profile of your firm’s products and services
- Access to competitive intelligence databases that include details of Government specifications, purchase histories for a given product/service, etc.

FOR HELP

If you have any further questions and/or concerns, please contact:

Electronic Commerce Information Center (ECIC) at 1-800-334-3414 (Monday – Friday, 8 a.m.- 6 p.m. EST) or by E-Mail at dodedi@hq.dla.mil

Other sources of assistance include the Electronic Commerce Resource Centers (ECRCs). These are Government-funded centers that can help you if there are problems implementing EC and Internet-based commerce. ECRCs also offer technical support and EC training. (See Appendix D for a listing of Electronic Commerce Resource Centers).

CHAPTER FIVE

REGISTERING WITH THE CENTRAL CONTRACTOR REGISTRATION

Chapter 2 CHAPTER SUMMARY

This chapter provides information on how to register with the Department of Defense (DoD). It also explains the purpose and benefits of registration, and the importance of the registration process.

REGISTERING WITH THE CENTRAL CONTRACTOR REGISTRATION

The purpose of registering in the Central Contractor Registration (CCR) is to allow all government agencies and private industry the ability to conduct business with the DoD.

Government agencies and private industry are only required to register in the database once with the subsequent requirements for annual updates. Registering with CCR automatically registers you with every Defense agency. The CCR is the single source from which the DoD receives business information on all contractors.

The CCR is a centralized database and application suite that records, validates, and distributes specific data about government and commercial trading partners. The CCR database creates an accurate business profile for clients that have registered and wish to do business with the DoD.

WHY REGISTER?

The DoD requires government agencies and private industry to register in the CCR prior to awarding of any contracts, basic agreements, basic order agreements, blanket purchase agreements, and payment of goods and/or services.

Chapter 3 BEFORE REGISTERING

Before registering with the CCR, you will need:

- Data Universal Numbering System (DUNS) number
- Commercial and Government Entity (CAGE) code
- Taxpayer Identification Number (TIN)
- Standard Industrial Classification (SIC) codes
- Finance and banking information

The Data Universal Numbering System (DUNS) number is a unique nine-digit company identification number. To obtain a DUNS number, call Dun & Bradstreet (D&B) at 1-800-333-0505. The process takes about ten minutes and is free of charge. If a company already has a DUNS number, the D&B representative will advise you over the telephone. Parent companies can add four additional characters (alphanumeric or number) of their choice to their DUNS number to identify and enable each subsidiary to establish a separate trading partner profile in CCR. These four alphanumeric or number identifiers are assigned and maintained by the parent company NOT D&B. For additional information on DUNS Numbers, visit their web site: <http://www.dnb.com>

The Tax Identification Number (TIN) is either the Employee Identification Number (EIN) issued by the Internal Revenue Service (IRS) or the company Social Security Number (SSN). Check for the TIN with the accounting, payroll, and/or personnel department. The IRS can also be contacted, at 1-800-829-1040 to verify the TIN. If operating as an individual/sole proprietorship, you must use the number under which you file taxes. If your taxes are paid by a parent company, indicate the parent company's TIN.

The Standard Industrial Classification (SIC) codes are part of a numbering system that identifies the type of products and /or services the company provides. The web site below offer search engines that will show possible codes based on key word descriptions: <http://www.ecrc.camp.org/siccodes/foursic-sql.html> and <http://www.osha.gov/oshstats/sicser.html> or applicable SIC Codes can be obtained from a Procurement Technical Assistance Center (PTAC) located in the relevant state. A minimum of one primary code and as many secondary codes as necessary should be listed. The PTAC's are available at: <http://www.dla.mil/ddas/procurem.htm>

Chapter 4 HOW TO REGISTER WITH CCR

The following are options for registering in the CCR.

(1) Register Using the Internet:

Register over the Internet by completing an electronic application at the CCR Homepage <http://www.ccr2000.com>

We recommend that you first download the instructions and forms for registration and go over them before you begin to enter the data online. This will ensure that you have all the required business information at hand so you can submit a complete application online. If you need help, your local Electronic Commerce Resource Center (ECRC) can assist you. They are listed in Appendix D.

(2) Register Using a VAN's Assistance

If you are already registered with a VAN that is connected to the DoD ECI system, the VAN can help with registration. They will send a completed 838 Trading Partner Profile to the Central Contractor Registration.

(3) Register Via Fax or Mail:

Complete the paper registration form and mail or fax the application to the CCR Assistance Center. You can access the paper CCR form and associated workbook from <http://www.ccr2000.com>

The CCR Assistance Center can be contacted at the following address:

Department of Defense
Central Contractor Registration Assistance Center
74 Washington Ave North, Suite 7
Battle Creek, Michigan 49017-3084
Phone: (888)-227-2423
Fax: (616) 961-7243

To check the status of your registration, you can go to the CCR site. Click on the Check Vendor Status icon and enter the appropriate DUNS Number.

Chapter 5 AFTER REGISTERING

After, your registration application is submitted and the information has been validated, you will receive a confirmation letter with your Commercial and Government Entity Code (CAGE Code). A letter containing your confidential Trading Partner Identification Number (TPIN) will be mailed to you. The letters will confirm that registration was successfully completed, and that you can begin to conduct business with the Government. You need your TPIN to change, renew, or cancel existing registration information. Please safeguard the confidentiality of your TPIN. If you misplace your TPIN and/or CAGE Code, you should call the Defense Logistics Information Service (DLIS) at (888) 352-9393.

Chapter 6 SECURITY

Registration information is accessible to DoD agencies and other authorized agents for purposes of doing business with firms that are registered. The CCR does not publicly release information specific to the business income, financial institution, financial accounts, or other similar confidential information.

Particularly sensitive data, such as bank account information used for Electronic Funds Transfer (EFT), is available only to you, your VAN (if applicable), and the Defense Finance and Accounting Service (DFAS). Freedom of Information Act (FOIA) data, such as company name, address, SIC and DUNS number, can be viewed in the public query. Your entire registration can be seen only by appropriate government users with a password and user ID, and by you after you have entered your DUNS and Trading Partner Identification Number (TPIN).

FOR HELP

For further questions and/or concerns, please contact:

Electronic Commerce Information Center (ECIC) at 1-800-334-3414 (Monday – Friday, 8 a.m.- 6 p.m. EST) or by E-Mail at dodedi@hq.dla.mil

Other sources of assistance include the Electronic Commerce Resource Centers (ECRCs). These are Government-funded centers that can help you if there are problems implementing EC and Internet-based commerce. ECRCs also offer technical support and EC training. (See Appendix D for a listing of Electronic Commerce Resource Centers).

CHAPTER SIX

Chapter 7 EC OVER THE INTERNET

CHAPTER SUMMARY

This chapter describes how EC works over the Internet, and how both the Federal Government and private industry are using the Internet to exchange data.

THE INTERNET

The Internet is a communication network that is used to link millions of computers together. These linked computers exchange information with different sources.

In today's society, the Internet can provide information in different languages, can interpret data regardless of the hardware or software that is used, can navigate from one site to another, and so forth. The Internet is an extremely capable source for researching data and providing effective and efficient answers to many questions and issues.

DO BUSINESS VIA THE INTERNET

Vendors or companies can communicate and do business with the Government electronically and instantly. They communicate with the Government (contracting offices) through the Internet and/or the Value Added Networks (VANs) using a new simplified Electronic Commerce Interoperability Process (ECIP). This process improves overall customer satisfaction among both commercial and government users of the Electronic Commerce Infrastructure (ECI). The new process emphasizes economics forces, customer requirements, and customer satisfaction as the primary determinants of the services and capabilities. The vendors use the Internet and/or the VANs to connect to Government contracting offices so they can review Government Requests For Information and Requests for Purchases, to bid on contracts, to search for goods or services, and provide profiles on Trading Partners, etc.

The Internet connects contractors to the Central Contractor Registration (CCR)/Central Contractor Registration Interface (CCRI). The CCR is the single place for contractors to register when conducting business with the Government. It is the Government's repository of contractor data pertinent to procurement and payment for services and products. The Internet provides service and entry into this system.

INTERNET SERVICE PROVIDER

If communication with DoD over the Internet is desired, the services of an Internet Service Provider (ISP) will be needed. This company will connect the business via modem or network to the Internet.

The best way to choose an ISP is by selecting an Internet provider who supports at least a 33.6 KBPS modem and offers unlimited services.

If an VAN service provider is selected, the VAN will gather the information necessary to conduct business with the Federal Government.

WHEN USING THE INTERNET

When using the Internet to transmit EC transactions, the following processes occur:

- Data is transferred from an application and converted into a User Defined Format (UDF) for transmission to the Trading Partner.
- This data is converted from a UDF into X12 format.
- The data is then sent over the Internet to the relevant Trading Partner using E-Mail, or File Transfer Protocol (FTP).
- The Trading Partner or VAN receives the E-Mail and converts the X12 data back into an application format.

USING THE INTERNET HAS THESE ADVANTAGES:

- It's easy to implement.
- It transmits the data accurately and rapidly.

Currently, a good portion of EC transactions are done over the Internet via VANs, ECPN, Government Gateways, Government procurement agencies, private industry Trading Partners, electronic catalogs, electronic mall, and other electronically based systems.

HOW THE GOVERNMENT USES THE INTERNET

Federal agencies are using the Internet in a number of ways for procurement purposes.

The Commerce Department posts solicitations for large purchases (over \$100K) in the *Commerce Business Daily (CBD)*, which is now accessible through the World Wide Web via *CBDNet*. *CBDNet* provides abstracts of these solicitations as well as contact information on how to order the full RFP or RFQ. *CBDNet* is available at: <http://cbdnet.access.gpo.gov>

A few agencies, such as NASA, have been granted waivers from the normal procurement procedures and therefore do not advertise their solicitations via the CBD. NASA, in particular, has developed the web-based NASA Acquisition Internet Service (NAIS) to facilitate the exchange of procurement information with its vendors. NASA Acquisition Internet Service is available at: <http://nais.nasa.gov/fedproc/home.html>

The DoD Business Opportunities web site offers business advantages to vendors who are using the Internet to review on-line solicitations. Business Opportunities were created to provide links to web-based systems that post DoD Contracts. DoD Business Opportunities are available at: <http://dodbusops.com/>

The General Services Administration (GSA) operates an on-line catalog GSA Advantage, where Government buyers can browse descriptions of GSA schedule items, comparison shop among the participating vendors, and pay for their purchases by using their Government credit card. GSA Advantage is available at web site: <http://www.fss.gsa.gov/cgi-bin/advwel/>

In addition to GSA Advantage, several other electronically based systems are on the Internet:

- The Air Force's Country Store: <http://www.hanscom.af.mil/Orgs/Spo/AVC/Cstore>
- The Army's A-Mart: <http://acqnet.brtrc.com/amart/> (This site requires a user name and password)
- The Defense Logistic Agency's
 - Defense Supply Center Philadelphia (DPSC): <http://www.dpsc.dla.mil/>
 - Defense Supply Center Richmond (DSCR): <http://www.dscr.dla.mil/>
 - Defense Supply Center Columbus (DSCC): <http://www.dscc.dla.mil/>
 - Defense Reutilization and Marketing Service (DRMS): <http://www.drms.dla.mil/>
- The Navy's Electronic Commerce Online site: www.neco.navy.mil
- The Navy's Information Technology Electronic Catalog (ITEC) Direct: <http://itec-direct.navy.mil/>
- Naval Inventory Control Point (NAVICP): <http://www.navicp.navy.mil>
- The Federal Government has also placed on the Internet two electronic malls: the DoD EMALL at <http://www.EMALL.dla.mil/> and GSA's Government Electronic Mall at <http://www.gsa.gov/gem.htm>.
- The Small Business Administration offers *PRO-Net*, a database of information on more than 171,000 small, disadvantaged, 8(a) and women-owned businesses, for use by contractors seeking small business contractors, subcontractors and/or partnership opportunities. *PRO-Net* is available at web site: <http://pro-net.sba.gov/>
- The Office of Federal Procurement Policy (OFPP) offers *ARNet* at <http://www.arnet.gov/>, a program that was established to improve the way that the Government obtains goods and services.
- Several agencies now offer procurement and acquisition-related web sites. Most of these sites contain bidders lists, drawings and specifications, announcements of bidders conferences, questions from vendors regarding the solicitation (as well as agency responses), and downloadable versions of RFPs.

HOW COMPANIES USE THE INTERNET

Companies are using the Internet to exchange EC transactions. By using encryption and other methods of technology, documents are sent over the publicly accessible Internet to larger companies. The Internet also helps small businesses to become electronically capable. Conducting EC via the Internet provides easy access and may be used between web enabled web sites to access speed.

There are three primary ways that companies may elect to use the Internet:

- Some companies use encryption. Encryption is the procedure that scrambles the contents of a file before sending it over the Internet. The recipient must have software to “decrypt” this file, which is held only by authorized recipients. The authorized user will need to unscramble the data and read the message.
- Other companies use E-Mail or Simple Mail Transfer Protocol (SMTP) for the protocol to send and receive email between servers on the Internet.
- Some companies use the Value Added Services (VAS) process of VANs. These VAS offer their customers a way to exchange transactions over the Internet. The VANs access the ECPN by using File Transfer Protocol (FTP) or SMTP over the Internet.

ELECTRONIC CATALOGS

Recently, many Federal agencies and industry suppliers have posted web-based electronic catalogs on the Internet, allowing agency buyers to browse items, compare prices, and place orders using Government purchase cards.

Electronic catalogs help shorten order cycle time and reduce the resources agency buyers need to make purchases. By using these catalogs, agencies gain a greater awareness of the products and services available, making them better equipped to comparison shop and make wiser purchases.

ELECTRONIC MALLS

As stated in Chapter I, Electronic Malls, like the DoD EMALL and GSA’s Government Electronic Mall, consist of several Electronic Catalogs spliced together. At EMALLs, Government buyers can access supplier catalogs in “mall” type settings. To have a presence on these electronic malls, vendors must submit their catalogs in an electronic format. The DoD Electronic Mall is available at: <http://www.emall.dla.mil/> The GSA Government Electronic Mall is available at: <http://www.gsa.gov/gem.htm>.

In the future, most Government buyers will select their micro-purchases using electronic malls. Their purchase orders, delivery orders, invoices, and other documents will be sent to the seller over the Internet and their payments will be made either by credit card or by Electronic Funds Transfer.

FOR HELP

For further questions and/or concerns, please contact:

Electronic Commerce Information Center (ECIC) at 1-800-334-3414 (Monday – Friday, 8 a.m.- 6 p.m. EST) or by E-Mail at dodedi@hq.dla.mil

Other sources of assistance include the Electronic Commerce Resource Centers (ECRCs). These are Government-funded centers that can help you if there are problems implementing EC and Internet-based commerce. ECRCs also offer technical support and EC training. (See Appendix D for a listing of Electronic Commerce Resource Centers).

CHAPTER SEVEN

HOW TO SELL GOODS AND SERVICES TO GOVERNMENT AGENCIES

CHAPTER SUMMARY

This chapter outlines different ways to sell goods and/or services to the Federal Government.

SOLICITATION MAILING LISTS

Currently, each procurement office maintains solicitation mailing lists. To have a company placed on these mailing lists, a written request must be sent to the office responsible for acquiring the products and services. A specific request should be made for the Standard Form (SF) 129 and the Solicitation Mailing List Application.

Once on the list, a written response (i.e. Not a Bid) should be made to each Invitation for Bid or Request for Proposal received, otherwise you could be removed from the solicitation mailing lists. To prevent this from happening, the contracting officer should be periodically notified of continuing interest.

As stated in Chapter 5, Central Contractor Registration (CCR) is the master registration database of contractors validated to do business with the Department of Defense (DoD). The CCR database consists of vendor information pertinent to procurement and financial business transactions. For additional information on CCR, visit: <http://www.ccr2000.com>

COMMERCE BUSINESS DAILY

As mentioned in Chapter 1, the *Commerce Business Daily* is a listing of Government solicitations. Commerce Business Daily is available at: <http://cbdnet.gpo.gov/>

A printed version of the *Commerce Business Daily* is available by yearly subscription. Subscription can be ordered over the Internet or by calling (202) 512-1800.

DOD BUSINESS OPPORTUNITIES

The DoD Business Opportunities web site offers business advantages to vendors who are using the Internet to review on-line solicitations. The DoD Business Opportunities web site was created to provide links to web-based systems that post DoD Solicitations. DoD Business Opportunities are available at: <http://dodbusopps.com/>

SOLICITATION COPIES AT PROCUREMENT OFFICES

In addition to using *CBDNet*, procurement offices also maintain and post copies of open solicitations for reference. The copies of these solicitations are available at the relevant local procurement offices. Appointments can be scheduled to meet with procurement personnel to discuss the types of products and services that are currently required and/or to discuss projected future requirements.

BUSINESS OPPORTUNITIES AVAILABLE THROUGH GSA

GSA purchases goods and services for the Federal Government, civilian agencies, the military, the Federal Courts, and the U.S. Congress. GSA buys both nationally and internationally.

For more information on business opportunities with GSA, visit the GSA web site at <http://www.gsa.gov/commerce.htm> Information about the Federal Supply Schedule Program is also available over the Internet. The Federal Supply Program is available at: <http://pub.fss.gsa.gov/sched/>

PURCHASING PROCEDURES

Federal agencies use a variety of procedures for purchasing on the open market. These procedures are governed by the Federal Acquisition Regulation (FAR).

The primary method that the Government uses to purchase goods and services are by open-market procurement with vendors. The open-market consists of vendors who have entered into the Federal Supply Schedule Program with GSA, or who have secured indefinite delivery type contracts issued by a Federal agency that are made available by ordering through other procurement organizations or other full and open competitive acquisition procedures..

The DoD Small and Disadvantaged Business Office provides additional information in support of small businesses as well as general information on Government contracting. For additional information visit the DoD Small and Disadvantaged Business Utilization web site at: <http://www.acq.osd.mil/sadbu/publications/selling/>

An additional source of information is the DoD Directive 4205.1 for Selling to the Military. DoD directives can be found at: <http://web7.whs.osd.mil/dodiss/directives/dir2.html>

Federal agencies now utilize the Internet in a number of ways for purposes of procurement:

- The Commerce Department posts solicitations for large purchases in the *Commerce Business Daily* (CBD), which is now accessible through the World Wide Web via *CBDNet*. *CBDNet* provides abstracts of these solicitations as well as contact information on how to order the full RFP or RFQ.
- A few agencies, such as NASA, have been granted waivers from the normal procurement procedures and therefore do not advertise their solicitations via the CBD. NASA, in particular, has developed the World Wide Web-based NASA Acquisition Internet Service (NAIS) to facilitate the exchange of procurement information with its vendors.
- The General Services Administration operates an on-line catalog GSA Advantage where Government buyers can browse descriptions of GSA schedule items, comparison shop among the participating vendors, and pay for their purchases by using their Government credit card.
- In addition to GSA Advantage, several other electronic catalogs are on the Web:
 - GSA Advantage: <http://www.fss.gsa.gov/cgi-bin/advwel/>
 - The Air Force's Country Store: <http://www.hanscom.af.mil/Orgs/Spo/AVC/Cstore>
 - The Army's A-Mart: <http://acqnet.brtrc.com/amart/> (This site requires a user name and password)
 - The Defense Logistic Agency's
 - Defense Supply Center Philadelphia (DPSC): <http://www.dpsc.dla.mil/>
 - Defense Supply Center Richmond (DSCR): <http://www.dscr.dla.mil/>
 - Defense Supply Center Columbus (DSCC): <http://www.dsccl.dla.mil/>
 - Defense Reutilization and Marketing Service (DRMS): <http://www.drms.dla.mil/>
 - The Navy's Information Technology Electronic Catalog (ITEC) Direct: <http://itec-direct.navy.mil/>
 - Naval Inventory Control Point (NAVICP): <http://www.navicp.navy.mil>
- The Federal Government has also placed two electronic malls on the Internet: the DoD EMALL and GSA's Government Electronic Mall. The DoD EMALL is available at: <http://www.EMALL.dla.mil/> The GSA's Government Electronic Mall is available at: <http://www.gsa.gov/gem.htm>
- The Small Business Administration offers *PRONet*, a database of information on more than 171,000 small, disadvantaged, 8(a) and women-owned businesses, for use by contractors seeking small business contractors, subcontractors and/or partnership opportunities. The *PRONet* is available at: <http://pro-net.sba.gov/>
- The Office of Federal Procurement Policy (OFPP) offers *ARNet*, a program that was established to improve the way that the Government obtains goods and services. The *ARNet* is available at: <http://www.arnet.gov/>
- Several agencies now offer procurement and acquisition related web sites. Most of these sites contain bidders lists, announcements of bidders conferences, questions from vendors regarding the solicitation (as well as agency responses), and downloadable versions of RFPs.

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Other sources of assistance include the Electronic Commerce Resource Centers (ECRCs). These are Government-funded centers that can help you if there are problems implementing EC and Internet-based commerce. ECRCs also offer technical support and EC training. (See Appendix D for a listing of Electronic Commerce Resource Centers).

Appendix A

INTERNET TECHNOLOGY

THE INTERNET

The Internet is a centralized communication tool that links millions of computers to a network integrator. The Internet assists computers with the function of exchanging information with different sources.

Originally funded by the Department of Defense and the National Science Foundation, the Internet is operated by thousands of institutions. Once the exclusive domain of researchers and academic studies, the Internet is becoming more popular than the global telephone network in its scale, economic importance, and daily use.

A single administrative body does not control the Internet. It is, however, supported by an aggregation of schools, corporations, Government agencies, and other organizations that share the Internet's resources.

ELECTRONIC MAIL

Electronic Mail (E-Mail) is the most frequently used application on the Internet. Many people have access to the Internet at school, home, and/or work. They use the Internet to send and receive E-Mail messages.

Sending E-Mail messages is fast and easy. Log onto the E-Mail Service Provider, create the message, and then click send. The message goes to your Internet Service Provider, which in turn sends it to the recipient's mail server. On the way, the message may go through several servers, each reading the domain name in order to route it to the recipient's server.

The main benefit of E-Mail is that it's quick and easy. There are locations you can visit in order to obtain an E-Mail address. These include sources such as Bigfoot, the Internet Address Finder, Four11.com, or Netscape's E-Mail Directories.

Both Netscape and Explorer browsers include E-Mail features. There are several free E-Mail programs available over the Internet. These include Qualcomm Inc.'s Eudora Lite, David Harris' Pegasus Mail, Claris' Claris-mailer, and Hotmail.

THE WORLD WIDE WEB

The World Wide Web (known as "WWW", "Web" or "W3") is an Internet client-server system that distributes information, based upon the hypertext transfer protocol (HTTP). Created at CERN in Geneva, Switzerland in 1991 by Dr. Tim Berners-Lee, CERN (European Organization for Nuclear Research) is in fact the birthplace of the World Wide Web.

One of the researchers of CERN, Dr. Tim Berners-Lee originated the hypertext transfer protocol (HTTP) on which the World Wide Web is based. HTTP is the World Wide Web protocol that consists of moving hypertext mark-up language (HTML) files across the Internet and is the coding language to create hypertext documents on the World Wide Web. HTML is a way to format text by placing marks ("tags") around the text (like old-fashioned typesetting code).

The universe of network-accessible data and the essence of human knowledge are based on a standard three-part model of client, content, and server. In this model, a client and a browser (for example, Netscape or Internet Explorer) connects to a remote machine and server, so that, a server's content will have a variety of files comprised at a web site that can be viewed. Such as a Universal Resource Locator (URL). A URL is the Internet address for a web document or other files. To view a brief history of the

World Wide Web visit: <http://www.w3.org/History.html>

A typical URL looks like this:

<http://www.whitehouse.gov/WH/New/Commerce/>

OTHER SERVICES ON THE INTERNET

In addition to E-Mail and the World Wide Web, the Internet offers several other services:

FTP (File Transfer Protocol) - is one of the workhorse protocols of the Internet. Today it works behind the scenes to transfer files between computers. It is made up of different series of commands that allow you to connect to a distant computer, get a directory listing and transfer the files from that computer to yours.

Telnet - is for the computer types who would rather type at the keyboard than use the graphical interface of the WWW. Once telnet is used to reach a remote computer, the user is operating at the command prompt and must know the command syntax of that computer.

Newsgroups - are services that use E-Mail to post messages to a central server. They are then broadcast to anyone requesting them. Newsgroups are sorted into topics of interest.

REGIONAL USER GROUPS

The following is a list of Regional User Groups that exist in many cities. Members of user groups meet periodically and share information on EC/EDI related subjects. An up-to-date list is published monthly in *EC World Magazine*.

Albuquerque, NM

Albuquerque EDI User Group
Becky Berwinkle
Phone: (505) 282-4091

Anchorage, AK

Alaska EDI Users Group
Carolyn Ellingwood
Phone: (907) 265-6126

Atlanta, GA

Atlanta EDI Users Group
Maria Safavi
Phone: (404) 676-5575

Austin, TX

Central Texas EDI User Group
Jerry Johnson
Phone: (512) 475-4756

Baltimore, MD

Baltimore EDI User Group
Renee Cookerly
Phone: (410) 360-5759

Boston, MA

New England EDI Users' Group
Wayne Marshall
Phone: (781) 386-3169

Chicago, IL

Greater Chicago EDI Forum
Ruth Anderson
Phone: (630) 832-1027

Chicago, IL-Oakbrook, IL

Illinois Healthcare EDI User Group
Terry Lee
Phone: (630) 990-5595

Cleveland, OH

Northeast Ohio EDI Users Group
TBD
Phone: (800) 851-6636

Cleveland, OH

National User Group Coordination
Gary K. Conkol
Phone: (216) 432-4195

Columbus, GA

EDI Users Group

TBD

Phone: (706) 660-9223

Columbus, OH

Central Ohio EDI Users Group

Michelle Oskowski

Phone: (614) 847-8212

Connecticut

EDI Users Group

Ken Midzenski

Phone: (203) 771-7845

Dallas-Ft. Worth, TX

Dallas-Ft. Worth EC Business Forum

Denise McKnight

Phone: (972) 231-8081

Dayton, FL

Greater Dayton EDI/EC User Group

Tim Reser

Phone: (937) 258-5771

Denver, CO

Colorado EC Roundtable

Don McCubbrey

Phone: (303) 871-2014

Florida

Florida EC/EDI Forum

Margo Noel

Phone: (904) 247-9286

Harrisburg, PA

Central PA EDI Healthcare User Group

Ann Leamy

Phone: (717) 975-6141

Houston, TX

Texas Gulf Coast EDI User Group

Beth Gilliard

Phone: (713) 216-4133

Indianapolis, IN

Indianapolis EDI User Group

Debra Eberhart

Phone: (317) 587-4479

Johnstown, PA

Laurel Highland EC User Group

Gary Bell

Phone: (814) 269-2446

Kansas City, MO

Kansas City EDI User Group
Dolly Bab
Phone: (913) 752-3428

Los Angeles, CA

SCEDIR
Bob Dempsey
Phone: (818) 302-5347

Los Angeles, CA

Southern California Healthcare
Michael Sweeney
Phone: (805) 569-7469

Louisville, KY

Kentuckiana EC/EDI Users Group
Roy Coleman
Phone: (502) 367-2186 x307

Memphis, TN

Memphis EDI User Group
James Myers
Phone: (901) 224-9166

Mexico City, Mexico

EDI Usuararos de Mexico
Antonio Rosales
Phone: (525) 395-7155

Michigan

Michigan EDI Users Group
TBD
Phone: (313) 271-1745

Millilani Town, HI

EDI Users Group for Hawaii
Larry Nelson
Phone: (808) 623-1745

Milwaukee, WI

Bar Code/EDI User's Council, Inc.
Jeff Grogan
Phone: (414) 250-2216

Minnesota-St. Paul

Minnesota Healthcare/EDI Users Group
Julie Childs
Phone: (612) 917-6717

Minneapolis-St. Paul, MN

Twin Cities EDI Forum
John Moriarty
Phone: (612) 933-1629

Monterrey N.L. Mexico

Foro de Usuarios EDI
Gabriel Lopez
Phone: (528) 151-1510

Newport News, VA

Southeastern Virginia EC/EDI Forum
Karen Jackson
Phone: (757) 766-7850

New York, NY

EC/EDI Forum of New York City
Lloyd Solomon
Phone: (212) 501-8014

North Carolina

Piedmont EDI Business Forum
R.T. Crowley
Phone: (919) 380-9771

Oklahoma City, OK

Central Oklahoma EC/EDI Forum
Linda Denison
Phone: (405) 239-2541

Omaha, NE

Midlands EDI Assoc.
Chad Sitzman
Phone: (402) 341-0500

Orlando, FL

Florida Healthcare/EDI User Group
Carole Hanon
Phone: (407) 895-7886

Ottawa, Canada

Electronic Commerce Canada
TDB
Phone: (613) 237-2324

Parsippany, NJ

Electronic Commerce Network of NJ
Clara Stricchiola
Phone: (973) 267-4200 x193

Philadelphia, PA

Delaware Valley EDI Roundtable
Robert J. Richter, Jr.
Phone: (610) 325-9755

Phoenix, AZ

Arizona EDI Roundtable
Dave Darnell
Phone: (602) 838-5316

Pittsburgh, PA

Greater Pittsburgh EDI Partners
Mark Ranchik
Phone: (412) 343-3027

Portland, ME

Electronic Commerce Forum of Maine
TDB
Phone: (207) 770-2160

Portland, OR

Portland EDI Infoshare
Mark Federspiel
Phone: (503) 978-6847

Princeton, NJ

New Jersey Healthcare/EDI Users Group
Dick Weaver
Phone: (609) 275-4236

Regina, SK, Canada

Saskatchewan EC/EDI User Group
John A. Houlden
Phone: (306) 536-2511

Richmond, VA

Richmond EDI User Group
Marty Stewart
Phone: (804) 281-1616

Rochester, NY

Rochester EDI User's Group
Jackie Schild
Phone: (716) 235-0200

Salt Lake City, UT

Utah Strategic EDI Resource
Bill Morey
Phone: (801) 486-2430 x30678

San Antonio, TX

Central Texas EDI Users Group
Jerry Johnson
Phone: (512) 475-4756

San Diego, CA

San Diego EDI Users Group
Pam Templeton
Phone: (619) 613-7932

San Francisco, CA

Northern California EDI Users Group
Sigrid Marmann
FAX: (415) 258-0256

Scranton, PA

Northern PA EC/EDI Users Group
Harry Mumford
Phone: (800) 575-3272

Seattle, WA

Northwest EDI Roundtable
Tim McMonigle
Phone: (425) 462-8627

Spokane, WA

Inland NorthWest EDI Roundtable
Dorothy Hooley
Phone: (509) 358-2081

St. Louis, MO

Electronic Commerce Forum of St. Louis
TBD
Message Line: (314) 331-1478

Toronto, Ontario

Food & Drug EDI User Group
Willy J. Fleras
Phone: (519) 741-5000

Tulsa, OK

Utility Industry Group
Kerry Reedr
Phone: (918) 599-2307

Vancouver, BC (Canada)

BC EDI Users Group
TDB
Voice Mailbox: (604) 532-8219

Washington, DC

DC EDI Users Group
Theresa Yee
Phone: (703) 917-7409

Washington, DC

Metro DC Healthcare/EDI Users Group
Tom Sadaukas
Phone: (703) 824-6006

Washington, DC

Ind. Assn. EDI Network Group
Kendra L. Martin
Phone: (202) 682-8517

West Chester, PA

West Chester Electronic Commerce
TBD
Infoline: (610) 918-4500

USER GROUPS UNDER FUTURE DEVELOPMENT

The following is a list of Regional User Groups that are under development, nationally and internationally. Members of the user groups under future development are seeking members and information on EC/EDI related subjects. An up-to-date list is published monthly in *EC World Magazine*.

Bermuda

EDI Council of Bermuda
Horst Finkberiner
Phone: (809) 295-4201

Germantown, WI

Bar Code/EDI User Council
Jeff Grogan
Phone: (414) 255-5779

Long Island, NY

Long Island EDI User Group
Eileen Keck
Phone: (516) 349-7100 x1275

Madison, WI

Madison EDI User Group
Barry Widera
Phone: (608) 267-2950

Nashville, TN

Nashville EDI User Group
Michael Keef
Phone: (615) 734-4660

Northeast Pennsylvania

Pennsylvania EDI User Group
Harry Mumford
Phone: (717) 941-4123

San Juan, PR

Association of the Caribbean
Pedro Gonzalez
Phone: (809) 754-7654

PROCUREMENT SITES

Most of the acquisition-related Internet web sites listed are operated by Federal agencies that tend to focus on larger procurements.

Most of these sites contain bidders lists, drawings and specifications, announcements of bidders conferences, questions from vendors regarding the solicitation (as well as agency responses), and downloadable versions of RFPs.

DEPARTMENTS OF THE EXECUTIVE BRANCH:

Department of Agriculture

- USDA Procurement: <http://www.usda.gov/procurement/>
- Agricultural Research Service: <http://www.ars.usda.gov/afm2/divisions/ppd/>
- Farm Service Agency: <http://www.fsa.usda.gov/amb/>
- Food and Consumer Service: <http://www.fns.usda.gov/newsite.htm>

Department of Commerce

- Commerce Acquisition Community <http://oamweb.osec.doc.gov/>
- Office of Small and Disadvantaged Business Utilization (OSDBU): <http://www.doc.gov/osdbu/>

National Institute of Standards and Technology (NIST)

- Contracts Office: <http://www.nist.gov/admin/od/contract/contract.htm>

National Oceanic and Atmospheric Administration (NOAA)

- Grants Program: <http://www.rdc.noaa.gov/~grants/>

Patent and Trademark Office

- Patent and Trademark Office Acquisitions: <http://www.uspto.gov/web/offices/ac/comp/proc/acquisitions/>

Department of Defense

- Office of the Under Secretary of Defense for Acquisition and Technology: <http://www.acq.osd.mil/>
- DUSD(AR)'s Acquisition Reform: <http://www.acq.osd.mil/ar/>
- Ballistic Missile Defense Organization Acquisition Reporting Bulletin Board: <http://www.acq.osd.mil/bmdo/barbb/barbb.htm>
- Defense Technical Information Center: <http://www.dtic.mil/hovlane/>
- Defense Intelligence Agency: <http://140.47.5.4/>
- National Imagery and Mapping Agency: <http://164.214.2.59/poc/contracts/contracts.html>
- Small Business Innovation Research (SBIR) Program: <http://www.acq.osd.mil/sadbu/sbir/>
- Tri-Service Contract Solicitation Network (Army Corps of Engineers, Naval Facilities, etc.): <http://tsn.wes.army.mil/>

Defense Logistics Agency

- DSCC - Defense Supply Center Columbus: <http://www.dscc.dla.mil/>
- DSCP - Defense Supply Center Philadelphia: <http://www.dscp.dla.mil/>
- DSCR - Defense Supply Center Richmond: <http://www.dscr.dla.mil/>

US Air Force

- Acquisition Home Page: <http://www.safaq.hq.af.mil/>
- Business Opportunities: <http://www.safaq.hq.af.mil/contracting/>

US Army

- CECOM - Communications-Electronics Command: <http://w3.arl.mil/contracts/>
- IOC - Industrial Operations Command Acquisition Center: <http://www.ioc.army.mil/ac/aais/ioc/>
- TACOM - Tank-Automotive and Armaments Command: <http://www.tacom.army.mil/>
- ACALA - Armament and Chemical Acquisition and Logistics Activity: <http://www-acala1.ria.army.mil/>
- ARDEC - Armament Research, Development and Engineering Center: <http://www-acala1.ria.army.mil/>

- /SMDC - Space and Missile Defense Command: <http://www.smdc.army.mil/>
- TRADOC - Training and Doctrine Command: <http://www.tradoc-acq.army.mil/>

US Navy

- Acquisition & Business Management Online: <http://www.abm.rda.hq.navy.mil/>
- ARO - Acquisition Reform Office: <http://www.acq-ref.navy.mil/>
- NAVSEA - Naval Sea Systems Command Contracts Directorate: <http://www.contracts.hq.navsea.navy.mil/acq/>
- NAVSUP - Naval Supply Systems Command Acquisition Reform Office: <http://www.navsupsup.navy.mil/business/aro/index.html> Fleet and Industrial Supply Center Norfolk: <http://www.nor.fisc.navy.mil/>
- Fleet and Industrial Supply Center San Diego: <http://www.sd.fisc.navy.mil/>
- NAVICP - Naval Inventory Control Point: <http://www.navicp.navy.mil/>
- MSC - Military Sealift Command: <http://www.msc.navy.mil/>
- NRL - Naval Research Lab: <http://heron.nrl.navy.mil/contracts/home.htm>
- Systems Center San Diego: <http://www.nosc.mil/contract/>
- NAWCTSD - Naval Air Warfare Center Training Systems Division – Orlando: <http://www.ntsc.navy.mil/>

Marine Corp

- MARCORSYSCOM – Business Opportunities Marine Corps Logistics: <http://www.ala.usmc.mil/boc/>

Department of Education

- Grants and Contracts: <http://gcs.ed.gov/>

Department of Energy

- Office of Procurement: <http://www.pr.doe.gov/>
- Business Opportunities: <http://www.pr.doe.gov/prbus.html>

Department of Health and Human Services

- Office of Acquisition Management: <http://www.hhs.gov/ogam/oam/>
- Grants Net: <http://www.hhs.gov/grantsnet/>

National Institutes of Health

- Grants and Contracts: <http://grants.nih.gov/grants/index.cfm>

Department of Housing and Urban Development

- Contracting: <http://www.hud.gov/offices/cpo/index.cfm>
- Business Opportunities: <http://www.hud.gov/fundopp.html>

Department of the Interior

- Acquisition, Financial Assistance, and Property Management: <http://www.ios.doi.gov/pam/pamhome.html>
- Bureau and Office Acquisition Pages: <http://www.ios.doi.gov/pam/acqsites.html>
- Electronic Posting System: <http://yack.dn.net/doieps/>

Department of Justice

- Acquisition Home Page: <http://www.usdoj.gov/07business/index.html>

Department of State

- Acquisitions: <http://www.statebuy.gov/home.htm>
- Business Opportunities: <http://www.statebuy.gov/busops.htm>

Department of Transportation

- Headquarters Office of Acquisition and Grant Management: <http://www.dot.gov/ost/m60/>
- Doing Business With The Department of Transportation: <http://www.dot.gov/business.htm>

Federal Aviation Administration

- FAA Acquisition Tool Set (FAST): <http://fast.faa.gov/>

Department of Treasury

- Small and Disadvantaged Business Utilization: <http://www.ustreas.gov/sba/>
- Bureau of Engraving and Printing: <http://www.bep.treas.gov/>
- Financial Management Service: <http://www.fms.treas.gov/>
- Secret Service: <http://www.treas.gov/usss/proc/>

Department of Veterans Affairs

- Special Notice- Wide Area Network Follow-On Procurement-Industry Conference: <http://www.va.gov/oa&mm/busopp/wan.htm>

INDEPENDENT AGENCIES OF THE EXECUTIVE BRANCH:

Consumer Product Safety Commission

- Business Information: <http://www.cpsc.gov/businfo/businfo.html>

Government Printing Office

- Procurement Services: <http://www.access.gpo.gov/procurement/index.html>

Environmental Protection Agency

- Doing Business with EPA: <http://www.epa.gov/oam/>
- Grants: <http://www.epa.gov/OER/>

Federal Communications Commission

- Office of Communications for Business Opportunities: <http://www.fcc.gov/Bureaus/OCBO/ocbo.html>

National Aeronautics and Space Administration

- Office of Procurement: <http://www.hq.nasa.gov/office/procurement/>
- NASA Acquisition Internet Service: <http://procurement.nasa.gov/>
- Center Procurement Sites: <http://procurement.nasa.gov/cgi-bin/NAIS/nasaproc.cgi>
- NASA Business Opportunities: http://procurement.nasa.gov/cgi-bin/NAIS/link_syp.cgi
- SEARCH all NASA Synopses: <http://procurement.nasa.gov/NPSE/>
- E-Mail Notification of Opportunities: <http://procurement.nasa.gov/maillist.html>
- Office of Small and Disadvantaged Business Utilization (OSDBU): <http://www.hq.nasa.gov/office/codek/>
- Small Business Innovation Research (SBIR) Program & Small Business Technology Transfer: <http://sbir.nasa.gov/>
- Ames Research Center (ARC): <http://procurement.nasa.gov/cgi-bin/EPS/bizops.cgi?gr=C&pin=21>
- Dryden Flight Research Center (DFRC): <http://procurement.nasa.gov/cgi-bin/EPS/bizops.cgi?gr=C&pin=24>
- Goddard Space Flight Center (GSFC): <http://procurement.nasa.gov/cgi-bin/EPS/bizops.cgi?gr=C&pin=51>
- Headquarters (HQ) Acquisition Division: <http://procurement.nasa.gov/cgi-bin/EPS/bizops.cgi?gr=C&pin=04>
- NASA Management Office (NMO) at the Jet Propulsion Lab (JPL): <http://ec.msfc.nasa.gov/msfc/nmo/busops.html>
- JPL Acquisitions Division Home Page: <http://acquisition.jpl.nasa.gov/>
- Johnson Space Center (JSC): <http://procurement.nasa.gov/cgi-bin/EPS/bizops.cgi?gr=C&pin=73>
- Kennedy Space Center (KSC): <http://procurement.nasa.gov/cgi-bin/EPS/bizops.cgi?gr=C&pin=76>
- Langley Research Center (LaRC): <http://procurement.nasa.gov/cgi-bin/EPS/bizops.cgi?gr=C&pin=23>
- Lewis Research Center (LeRC): <http://procurement.nasa.gov/EPS/GRC/class.html>
- Marshall Space Flight Center (MSFC): <http://procurement.nasa.gov/cgi-bin/EPS/bizops.cgi?gr=C&pin=62>
- Stennis Space Center (SSC): <http://procurement.nasa.gov/cgi-bin/EPS/bizops.cgi?gr=C&pin=64>

National Science Foundation

- Grants Contracts: <http://www.nsf.gov/home/grants.htm>

Social Security Administration

- Office of Acquisition and Grants: <http://www.ssa.gov/oag/oag1.htm>

Nuclear Regulatory Commission

- Doing Business with NRC: <http://www.nrc.gov/NRC/contract.html>

U.S. Postal Service

- Selling to the U.S. Postal Service: <http://new.usps.com/cgi-bin/uspsbv/scripts/category.jsp?C=-10848>

COMMERCE BUSINESS DAILY AND OTHER BUSINESS OPPORTUNITIES INFORMATION

CBDNet: <http://cbdnet.access.gpo.gov/index.html>

Commerce Business Daily Numbered Notes: <http://www.ld.com/cbd/notes.htm>

Government Contractor Resource Center: <http://www.ld.com/cbd/notes.htm>

Small Business Administration: <http://www.sbaonline.sba.gov/>

SBA ProNet: <http://pro-net.sba.gov/>

Department of Commerce Information

- Commerce Acquisition Community Home Page: <http://oamweb.osec.doc.gov/>
- Department of Commerce Reengineering Acquisition Process: <http://oamweb.osec.doc.gov/conops/>
- National Institute of Standards and Technology: <http://www.nist.gov/>

Federal Acquisition Regulations, Policy and Related Information

- Federal Acquisition Regulations: <http://www.arnet.gov/far/>
- GPO Access: http://www.access.gpo.gov/su_docs/aces/aaces002.html
- FedLaw: <http://fedlaw.gsa.gov/>
- Procurement Reference Library: <http://ec.msfc.nasa.gov/msfc/procref.html>

Miscellaneous Federal Procurement Resources

- Acquisition Reform Net: <http://www-far.npr.gov/>
- Federal Acquisition Institute: <http://hydra.gsa.gov/staff/v/faipage.htm>
- FEDWORLD Information Network: <http://www.fedworld.gov/>
- List of Parties Excluded from Federal Procurement Programs: <http://epls.arnet.gov>
- Thomas Register of American Manufacturers: <http://www.thomasregister.com/>

ACQUISITION RELATED SITES

Acquisition Reform Net Advanced Research Projects Agency: <http://www.arnet.gov/>

US Army Electronic Commerce Office: <http://www.armyec.com/>

Assistant Secretary of the Air Force (Acquisition): <http://www.safaq.hq.af.mil/>

Defense Acquisition Deskbook: <http://web1.deskbook.osd.mil/default.asp>

DISA Joint Interoperability & Engineering Organization Center for Standards: <http://www.itsi.disa.mil/>

Fairfax Electronic Commerce Center (ECRC): <http://www.ecrc.gmu.edu/>

Finance Net: <http://www.financenet.gov/>

Government Solutions: <http://www.govsolutions.com/>

Modeling and Simulation Operational Support Activity: <http://www.msosa.dmsomil/>

Navy Electronic Commerce Online (NECO): <http://ecic.abm.rda.hq.navy.mil/>

Software Engineering Institute <http://www.sei.cmu.edu/>

Software Program Managers Network: <http://www.spmn.com/>

Value Engineering at Aeronautical Systems Center (ASC): <http://www.en.wpafb.af.mil/>

US Army, CECOM Acquisition Center: <http://www.monmouth.army.mil/cecom/ac/ac.html>

PROCUREMENT RESOURCES:

Electronic Commerce

- President's Framework for Global Electronic Commerce Home Page: <http://www.whitehouse.gov/>
- Electronic Processes Initiatives Committee (EPIC) of the President's Management Council: <http://policyworks.gov/>

Federal Electronic Commerce Program Office (ECPO): <http://www.ec.fed.gov/>

- Joint Electronic Commerce Program Office (JECPO): <http://www.acq.osd.mil/jecpo/>
- National Electronic Commerce Resource Center (ECRC): <http://www.ecrc.ctc.com/>
- EC/EDI and CALS Resource Locator at Fedworld: <http://www.fedworld.gov/>
- Secretariat for Federal EDI at Dept of Commerce (NIST): <http://snad.ncsl.nist.gov/fededi/>
- Central Contractor Registration: <http://www.ccr2000.com>

Electronic Catalogs

- GSA Advantage On-Line Shopping Catalog web site:
<https://www.gsaadvantage.gov/cgi-bin/advwel>
- Government-Wide ADP Mass Buy Contracts Home Page of NASA: <http://genesis.gsfc.nasa.gov/nasa/adpmass.htm>
- Department of Justice UNICOR Federal Prison Industries On-Line Shopping Catalog: <http://www.unicor.gov/>
- NIH Computer ODCI Home Page: <http://www.woirm.nih.gov/>

Electronic Malls

- DoD E-Mail: <https://www.emallmom01.dla.mil/scripts/default.asp>

Card Technology

- Current Charge Card Programs (GSA): <http://www.arnet.gov/far/>
- Government-Wide Commercial Credit Card Service (I.M.P.A.C. Program) (GSA): <http://www.gsa.gov/Portal/main.jsp?tab=home>

CODES - PSC, FSC, Congressional Districts, SIC Codes and Other Codes

- Standard Industrial Classification (SIC) Structure from OSHA: <http://www.osha.gov/cgi-bin/sic/sicser5>
- Standard Industrial Classification (SIC) Manual (and SIC Search) from OSHA: <http://www.osha.gov/oshstats/sicser.html>
- Geographic Locator Codes (GLC's) from GSA: <http://hydra.gsa.gov/glc/default.htm>
- North American Industry Classification System (NAICS): <http://www.census.gov/epcd/www/naics.html>

Federal Acquisition Regulations (FAR) and Agency Supplements

- Official GSA Site of the Federal Acquisition Regulations (FAR): <http://www.arnet.gov/far/>
- FAR forms sorted numerically: <http://hydra.gsa.gov/forms/farnumer.htm>
- FAR forms sorted alphabetically by title: <http://hydra.gsa.gov/forms/faralpha.htm>
- Air Force FARSite: <http://FARSITE.HILL.AF.MIL/>
- Federal Documents and Regulations - Government Printing Office Web site: http://www.access.gpo.gov/su_docs/aces/aces002.html
- Dept. of Defense (DoD) Contracting Regulations: <http://www.acq.osd.mil/dp/dars/>
-

Laws, Regulations, Executive Orders, and Policy

- Code of Federal Regulations (CFR) - National Archives and Records Administration (GPO Web Site): <http://www.access.gpo.gov/nara/cfr/index.html>
- Thomas Legislative Information: <http://thomas.loc.gov/>
- Congressional Record - Government Printing Office Web site: http://www.access.gpo.gov/su_docs/aces/aces150.html
- Federal Register - Government Printing Office Web site: http://www.access.gpo.gov/su_docs/aces/aces140.html
- Federal Acquisition Reform Act of 1995 (FARA) Full text: <http://hydra.gsa.gov/staff/v/mvi/fara.htm>
- FAR: Before & After FASA Comparisons: <http://hydra.gsa.gov/staff/v/homepages/broadcast.htm>
- Federal Government: General Information Resources (Library of Congress): <http://lcweb.loc.gov/global/execu->

[tive/general_resources.html](http://www.arnet.gov/general_resources.html)

- Commercial Item Acquisition - Anthology of Commercial Terms and Conditions (GSA-FSS): <http://www.arnet.gov/References/fssciate.html>
- List of Parties Excluded from Federal Procurement and Nonprocurement Programs: <http://www.arnet.gov/epl/>

Reports

- General Accounting Office (GAO) Reports and Testimony Web site: <http://www.gao.gov/reports.htm>
- GAO Reports - Government Printing Office Web site: http://www.access.gpo.gov/su_docs/aces/aces160.shtml

Posting Bids, Bid Protests and Contract Appeals

- Federal Government Bid web site: <http://www.ecrc.camp.org/>
- Navy Electronic Commerce On-Line web site: <http://ecic.abm.rda.hq.navy.mil/>
- General Accounting Office (GAO) Administrative Practice & Procedure, Bid Protest Regulations, and Government Contracts: <http://www.gao.gov/decisions/bidpro/new.reg/regulation.htm>
- General Accounting Office (GAO) Bid Protest Decisions: <http://www.gao.gov/decisions/bidpro/bidpro.htm>
- GAO Comptroller General Decisions - Government Printing Office: http://www.access.gpo.gov/su_docs/aces/aces170.shtml
- GSA Board of Contract Appeals (GSBCA) Rules of Procedure: <http://www.gsa.gov/Portal/main.jsp?tab=home>
- GSA Board of Contract Appeals (GSBCA) Decisions: <http://www.gsa.gov/Portal/main.jsp?tab=home>
- Department of Veterans Affairs Board of Contract Appeals Opinions: <http://www.va.gov/bca/index.htm>
- U.S. Postal Service Procurement Protest Regulation: <http://www.usps.gov/lawdept/LegalPly/Contract/PurchMan.htm>
- U.S. Postal Service Procurement Protest Decisions: <http://www.usps.gov/lawdept/LegalPly/Contract/>

Guidance/Training

- Federal Acquisition Institute (FAI): <http://hydra.gsa.gov/staff/v/faipage.htm>
- Best Practices Guidebook, Acquisition, and Procurement Best Practices (ARNet Web site) : <http://www.arnet.gov/BestP/BestP.html>
- Guidelines for the Use of Oral Presentation: <http://www.pr.doe.gov/oral.html>

Appendix D

ELECTRONIC COMMERCE RESOURCE CENTERS

Atlanta Regional ECRC

866 West Peachtree
Atlanta, Georgia 30332-0585
Toll Free: (800) 894-8042
Fax: (404) 894-4785
Web Site: <http://www.ecrc.gatech.edu/>

Bremerton Regional ECRC

5780 W. Warner Road
Bremerton, WA 98312
Toll Free: (800)-478-3933
Fax: (360) 782-5595
Web Site: <http://www.becrc.org/>

Cleveland Regional ECRC

4600 Prospect Avenue, Suite 300
Cleveland, OH 44113
Toll Free: (800) 991-3272
Fax: (216) 426-2068
Web Site: <http://www.ecrc.camp.org/>

Dallas Regional ECRC

1420 W. Mockingbird Lane, Suite 100
Dallas, TX 75247
Toll Free: (888) 372-3272
Fax: (214) 599-2525
Web Site: <http://www.dfwecrc.com/>

Dayton Regional ECRC

1900 Founders Drive, Suite 300
Dayton, OH 45420-4011
Toll free: (888) 449-6060
Fax: (937) 258-5776
Web Site: <http://www.daytonecrc.org/>

Fairfax Regional ECRC

10640 Page Avenue, Suite 400
Fairfax, VA 22030
Toll Free: (800)-691-3867
Fax: (703) 691-8948
Web Site: <http://www.ecrc.gmu.edu/>

Johnstown Regional ECRC

100 CTC Drive
Johnstown, PA 15904
Phone: (800) 231-2772
Fax: (814) 269-2600
Web Site: <http://www.ecrc.ctc.com/jecrc/>

Largo Regional ECRC
7990 114th Ave, North
Largo, FL 33773-5026
Toll Free: (800) 397-8494
Fax: (727) 549-7010
Web Site: <http://www.fecrc.ctc.com/>

Laurinburg Regional ECRC
127 Fairley Street
Laurinburg, NC 28352
Toll Free: (888) 651-5219
Fax: (910) 277-6035

Web Site: <http://www.ecrc.ctc.com/lanc/index.htm>

New Orleans Regional ECRC
3520 General de Gaulle Drive
New Orleans, LA 70114
Toll Free: (800) 359-4711
Fax: (504) 364-6310
Web Site: <http://www.noecrc.ctc.com/>

Oakland Regional ECRC
475 14th Street, Suite 550
Oakland, CA 94612
Toll Free: (888) 625-3272
Fax: (510) 267-7411
Web Site: <http://www.ecrc.ctc.com/oakland/>

Orange Regional ECRC
300 North Fourth Street
Orange, TX 77630-5702
Toll Free: (800) 417-3950
Fax: (409) 882-3981

Web Site: <http://www.oecrc.org/>

Palestine Regional ECRC
2000 S. Loop 256, Suite 104
Palestine, TX 75801-5918
Toll Free: (903) 729-4440
Fax: (903) 729-4610
Web Site: <http://www.ptxecrc.com/>

San Diego Regional ECRC
5333 Mission Center Road, Suite 210
San Diego, CA 92108
Toll Free: (800) 400-4207
Fax: (619) 725-5001
Web Site: <http://www.sdecrc.com/>

San Antonio Regional ECRC
4318 Woodcock Drive, Suite 200
San Antonio, TX 78228
Phone: (800) 626-8519
Fax: (210) 732-5011
Web Site: <http://www.saecrc.org/>

Scranton Regional ECRC
Harper-McGinnis Wing
Scranton, PA 18510-4639
Toll Free: (800) 575-3272
Fax: (570) 941-7611
Web Site: <http://www.ecrc.uofs.edu/>

West Chester Regional ECRC
211 Carter Drive
West Chester, PA 19382
Toll Free: (888) 745-3748
Fax: (610) 918-4545

Web Site: <http://www.wcecrc.org/>

GLOSSARY

American National Standards Institute (ANSI): Parent organization of ASC X12. ANSI is the coordinator and clearinghouse for standards in the United States.

ANSI ASC X12: American National Standards Institute Accredited Standards Committee X12. This committee develops and maintains U.S. standards for Electronic Data Interchange (EDI).

Archive: to store data for a given period of time for security, backup, or auditing

ASCII: American Standard Code for Information Exchange. ASCII is a 7-bit code with an 8th bit used for parity. The term is used to describe the format for transmission and for storage of data.

Audit Trail: manual or computerized recording of transactions affecting the contents or origin of a record.

Authentication: a security measure that verifies that an EDI message that was not tampered with or altered during transit.

Automated Clearing House (ACH): a network of financial institutions providing electronic funds transfer services.

Bar Code: an array of rectangular marks and spaces in a predetermined pattern. Usually used for automatic product identification.

Baud or Bits per Second: the rate at which data is transmitted. Commonly used rates are 9,600, 14,400 and 28,800 baud or BPS.

Bit: binary digit (0 or 1), the smallest component of information stored or transmitted by a computer.

Business Application: a computer-based system that processes business information in support of a specific business function such as purchasing, accounting or logistics management, etc. Business application data is produced by such applications and transmitted to a translation program for conversion into ANSI X12 formats and vice versa.

Byte: size of memory space needed to store a single character, which is usually 8 bits. A computer's memory size is measured in kilobytes where 1 kilobyte is equal to 1,024 bytes.

CAGE Code: Commercial and Government Entity (CAGE) Code; unique five character company identification number issued by the Defense Logistics Information Service (DLIS) to identify DoD contractors. It will automatically be assigned and validated in the registration process.

Character: standard bit representation of a symbol, letter, number, or punctuation marks; generally means the same as a byte.

Communications Protocol: communications standards based upon which two computers coordinate the exchange of data.

Communications Software: a software program that controls computer hardware and modems and arranges for the transmission or reception of electronic data.

Compliance Checking: a checking process that is used to ensure that a transmission complies with syntax rules.

Control Characters: in communications, any transmitted characters used to control or facilitate data transmission between two or more computers. Also, characters associated with addressing, polling, message delimiting and blocking, framing, synchronization, error checking, and other control functions.

Data Element: the smallest, meaningful piece of information in a business transaction. A data element may condense lengthy descriptive information into a short code. Equivalent to a data field in a paper document; a series of data elements is used to build a data segment. A data element dictionary that defines the data element and, where appropriate, the code is part of ASC X12 standards

Data Element Dictionary: the publication that lists all of the data elements used within EDI standards.

Data Element Reference Number: the number that identifies each element in the segment diagram with its corresponding definition in the data dictionary. Also known as a data element number.

Data Interchange Standards Association, Inc. (DISA): the Secretariat for ASC X12 to ANSI and it administers ASC X12 membership, ballots, standards development, publication and communicates for the X12 Committee.

Data Segment: a group of related data elements in a transaction set. Each segment has a unique segment identifier, a combination of two or three uppercase letters and/or digits that serves as a name for the segment and occupies the first character positions of the segment. A segment is equivalent to a data record in a database.

Data Segment Dictionary: the publication that shows the format of all the segments in the standard.

Draft Standard for Trial Use (DSTU): proposed transaction set within ANSI ASC X12 that remains in draft form until approved through a balloting process.

DUNS Number: Data Universal Numbering System (DUNS): a unique nine-character company identification number issued by Dun & Bradstreet Corporation.

EDIFACT: EDI for Administration, Commerce, and Transportation (EDIFACT). An international UN-sponsored EDI standard primarily used in Europe and Asia. An alignment is envisioned between ANSI ASC X12 and EDIFACT EDI standards in the future to create a single global EDI standard.

EDI Standards: rules by which business data are translated into a computer-readable format for electronic transmission to a Trading Partner's computer for processing. Also known as ANSI ASC X12 standards in the U.S.

Electronic Business (EB): The application of Electronic Commerce techniques and solutions to the business processes of the DoD to include the entire range of the DoD functional areas.

Electronic Catalog (ECAT): is maintained by DLA & DLIS, which allows DoD customers to make purchases electronically. The ECAT system has been absorbed by EMALL and is no longer a separate functioning system.

Electronic Commerce (EC): is the interchange and processing of information via electronic techniques for accomplishing transactions based upon the application of commercial standards and practices. Further, an integral part of implementing EC is the application of business process improvement or reengineering to streamline business processes prior to the incorporation of technologies facilitating the electronic exchange of business information.

Electronic Commerce Infrastructure (ECI): is designed to communicate and sustain the exchange of EC transactions between the Government and industry users of the ECI.

Electronic Commerce Infrastructure (ECI) Provider: is a department, service, or agency within the Federal Government; a commercial Value Added Network (VAN); or other entity that transmits, receives, sorts, and provides access to EC messages and/or transactions.

Electronic Commerce Interoperability Process (ECIP): is a service provider that offers procedures and guidelines for supporting functional areas, this process has replaced the Value Added Network (VAN) Licensing Agreement (VLA).

Electronic Commerce Processing Node (ECPN): A collection of hardware and software systems which provide communication connectivity between ECI Providers, Value Added Networks (VANs) and the Government Gateways to support the exchange of EC transactions between Government procurement agencies and private sector Trading Partners.

Electronic Data Interchange (EDI): an entity of Electronic Commerce (EC), is the computer to computer exchange of business data in a standardized format between Trading Partners.

Electronic Funds Transfer (EFT): the exchange of payment and remittance information electronically.

Electronic Mailbox: a holding location for EDI transactions generally provided by a Value Added Network (VAN) to its customers. The customers would normally dial-up and connect to their EDI mailboxes and download and upload transactions.

Electronic Malls (EMALLs): provide vendor information to Federal Government customers. It is a method with additional choices that is made available by Internet technology, search engines, distributed databases and credit card ordering. It is a flexible system, which provides more services at a price that is reasonable. The DoD EMALL is constantly updated with new information to fit the needs of the end-user and also provides visibility to new vendors looking for a new avenue to make their products visible to DoD and the Federal Government.

Electronic (or Digital) Signature: a code or symbol that is the electronic equivalent of a written signature.

Encryption: the transformation of confidential plain text into a cipher text for protection.

Event-Driven EDI: EDI processing triggered by predetermined criteria, such as the receipt of a Purchase Order from a specific Trading Partner.

Field: the smallest meaningful unit of information in a data record. Examples: first name, last name, address, etc.

Header: the segment that indicates the start of an entity that is to be transmitted. Headers are control structures.

Header Area: the transaction set header area contains preliminary information that pertains to the entire document, such as the date, company name, address, P.O. number, and terms.

HTML: Hyper Text Markup Language; an SGML-based language used to create Internet World Wide Web Pages that incorporate hypertext links, text, graphics, sound, and video.

Implementation Conventions (ICs): subsets of EDI standards developed for ease-of-use within one industry. Such conventions generally define how segments, elements, and codes within a standard should be used. They also contain explanatory remarks.

Interchange: the exchange of information from one Trading Partner to another. A set of transaction sets or messages sent from one sender to one receiver at one time. Delineated by an interchange control structure.

Interconnection: the connecting of two VANs so that documents can be exchanged between subscribers who do not use the same VAN.

Interface: a recognized and definable crossover point between two systems.

Interoperability: The ability of the systems, units, or forces to provide and receive services from other systems, units, or forces and to use the services enables them to operate effectively together. The conditions achieved among communications-electronics systems or items of communications-electronic equipment when information or services can be exchanged directly and satisfactorily between them and/or their user.

Invitation For Bids (IFBs): the procedure concerning the display of invitations for bids in a public place, information releases to newspapers and trade journals, paid advertisements, and synopsizing in the *Commerce Business Daily*.

Loop: a repetition of a group of segments in a transaction set.

Mailbox: part of the EDI network service set aside for a specific participant to hold that participant's message. Part of an EDI Value-Added Network service that holds a customer's message/transaction sets until retrieved.

Modem: a hardware device that converts digital (computer) data into audio (analog) tones for transmission over a telephone network. The process is reversed when receiving data.

Proprietary EDI Standards: a non-ASC X12, industry-specific, EDI standards developed by a group of companies in the same industry. Generally, the users of proprietary standards eventually migrate to using ANSI ASC X12 or EDIFACT standards.

Qualifier: a data element that gives a generic segment or a generic data element a specific meaning.

Real-Time EDI: EDI in which transaction sets are sent and received on-line and entire transactions can be completed in a single session. Presently, most EDI transactions are still in the store-and-retrieve or store-and-forward mode. Also known as interactive EDI.

Release: a title given to annual updates of ANSI ASC X12 standards by the Data Interchange Standards Association (DISA).

Request For Proposal (RFP): A formal document issued by an organization seeking assistance in completing a given task. RFPs, used most often in Government contracting, describe the work to be completed, in general terms, and the criteria by which proposals from organizations seeking to bid on the job will be evaluated.

Request For Quote (RFQ): A formal document issued by an organization seeking assistance in completing a given task. RFQs are similar to Requests For Proposals (RFPs) but are generally used for more standardized products or services.

Security: the desired level of integrity, exclusiveness, availability, and effectiveness to protect data from loss, corruption, destruction, and unauthorized use.

SF-129: Solicitation Mailing List Application; a standard form used by the Federal Government to collect information about contractors and to add them to solicitation mailing lists. Individual procurement offices collect information. In most cases, the EDI 838-contractor registration process is superseding the SF-129 form.

SIC Code: Standard Industrial Classification (SIC) Code; coding system used to identify specific industrial goods or services within the Federal Government.

Store-and-Forward: the process of storing EDI transmissions in an electronic mailbox before delivering them to recipients.

Sub-Element: a data element that is used as part of a composite data element. For example, a data element and its qualifier can be sub-elements of a composite data element.

Synchronous Transmission: data communications in which characters or bits are sent at a fixed rate, with the transmitting and receiving devices synchronized; these eliminate the need for start and stop bits basic to asynchronous transmission and significantly increases data throughput rates.

Trading Partner: an organization or individual with whom information or data is accessed or exchanged. The term trading partner includes private industry, academia, and government entities.

Trading Partner Agreement (TPA): a written instrument of understanding negotiated agreement between EDI Trading Partners that specifies contractual matters and protocols of governing EDI transactions. These are generally used in the private sector among EDI Trading Partners. Within the Federal EDI acquisition context, Trading Partner Instructions (TPI) are issued by the Government to the vendor community and are used instead of a TPA.

Transaction Set Summary: the summary area contains control information and other data that relates to the total transaction area, such as the total line items and total amount due.

Translation Software: software that translates an incoming ANSI ASC X12 transaction set into an ASCII flat file or vice versa. Also known as EDI management software.

Value Added Network (VAN): generally commercial entities that transmit, receive, and store EC transactions on behalf of their customers. VANs may also provide additional services known as Value Added Services.

Value-Added Service (VAS): is an additional service provided by a VAN (also known as an EDI Service Bureau) that provides EDI-related services.

Version: a title given to the updates of ANSI ASC X12 standards as officially approved by ANSI, approximately every 3 years.

